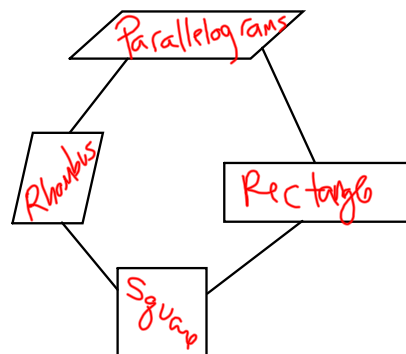
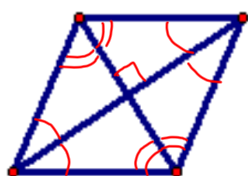


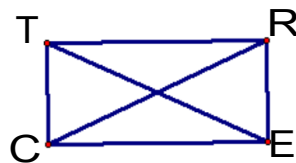
6.4 Rhombuses, Rectangles, and Squares

Rhombus—a parallelogram with 4 \cong sidesRectangle—a parallelogram with 4 right \angle sSquare—a parallelogram with 4 \cong sides and 4 right \angle s

Rhombus

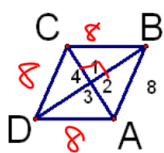
Theorem 6.10—The diagonals of a rhombus are \perp and they bisect the angles.

Rectangle

Theorem 6.11—The diagonals of a rectangle are \cong .

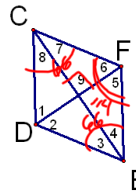
$$TE = RC$$

Rhombus ABCD



$$\begin{aligned} m\angle 1 &= 90 \\ m\angle 2 &= 90 \\ m\angle 3 &= 90 \\ m\angle 4 &= 90 \\ BC &= 8 \\ AD &= 8 \\ CD &= 8 \end{aligned}$$

Rhombus CDEF

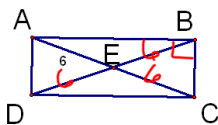


$$m\angle DEF = 66^\circ$$

$$\begin{array}{r} 180 \\ - 66 \\ \hline 114 \end{array}$$

$$\begin{aligned} m\angle 1 &= 57 \\ m\angle 2 &= 57 \\ m\angle 3 &= 33 \\ m\angle 4 &= 33 \\ m\angle 5 &= 57 \\ m\angle 6 &= 57 \\ m\angle 7 &= 33 \\ m\angle 8 &= 33 \\ m\angle 9 &= 90 \end{aligned}$$

Rectangle ABCD

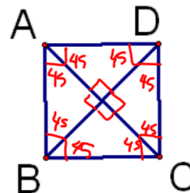


$$\begin{aligned} EC &= 6 \\ BE &= 6 \\ ED &= 6 \\ BD &= 12 \end{aligned}$$

$$\begin{aligned} m\angle ABC &= 90^\circ \\ m\angle BCD &= 90^\circ \end{aligned}$$

Square ABCD

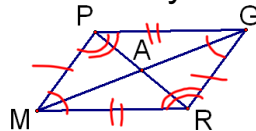
Fill in the missing angles.



List all of the properties that must be true for the given quadrilateral:

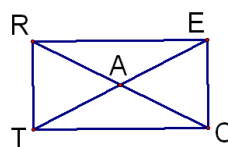
- a. all sides are \cong
- b. all angles are \cong
- c. diagonals are \cong
- d. opposite angles are \cong
- e. opposite sides are \cong
- f. consecutive angles are supplementary
- g. diagonals bisect each other
- h. opposite sides are parallel
- i. diagonals are perpendicular and bisect the angles

Summary



Parallelogram

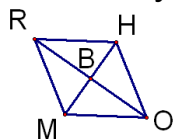
h, d, e, f, g



Rectangle

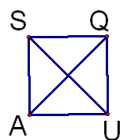
h, d, e, f, g
 b, c

Summary



Rhombus

h, d, e, f, g
 a, c



Square

h, d, e, f, g
 a, b, c

Homework

p. 328-329

#s 1-12, 14-20